BRUHATH BANGALORE MAHANAGARA PALIKE

DASARHALLI ZONE

DIVISION:- DASARAHALLI DIVISION

NAME OF WORK:- Improvements to roads Abbigere circle to Lakshmi temple and surrounding area (Pipe line road) in Ward No.12 Shettyhalli, Shettyhalli Sub Division

Jobcode:- 99.00 Lakhs

P code:- P3602

M-A0083

Estimated Cost:- 012-20-000117

BRUHAT BENGALURU MAHANAGARA PALIKE
DASARAHALLI DIVISION

Name of Work : Improvements to roads Abbigere circle to Lakshmi temple and surrounding area (Pipe line road) in Ward No.12 Shettyhalli, Shettyhalli Sub Division

Jobcode: 012-20-000117			Pcode: P3602				Est Cost Rs: 99 Lakhs		
Sl. No.	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
	CULVERTS								
1	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork excavation by **manual means** for roads, drains and similars works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3								
	(Pg 143 item no 19.1 of PW,P&IWTD S.R 2018-19)								
	Culvert	**Cum**	8	7.00	2.00	1.25	140.00		
	Culvert		7	6.50	2.00	1.25	113.75		
	Desilting		2	405.00	0.60	0.45	218.70		
						Total	**470.47**	**233.20**	**109713.60**
	Basic Rate	130.00							
	Lead calculation for 15km ((2x1.28x15)+15=95.4)	95.40							
	Area Weightage@6%	7.80							
	Total Rate	**233.20**							
2	KSRB 4-1.7 : Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs with 20mm and down size graded granite metal coarse aggregate @ 0.84cum and fine aggregate @ 0.56 cum machine mixed concrete laid in layers not exceeding 15cms, thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications, specification. No. KBS 4.1,4.2.								
	(Pg 13 item no 4.2 of PW,P&IWTD S.R 2018-19)								
	Culvert	Cum	8	7.00	2.00	0.20	22.40		
	Culvert		7	6.50	2.00	0.20	18.20		
	Bottom		2	52.00	1.20	0.20	24.96	5711.15	
					Total Qty		**64.16**	**5714.97**	**366643.82**
	Basic Rate	5309.00							
	Deduct Cement Rate as per SR 2018-19	1079.39		(220/100)*490.63				1079.386	
	Sub Total	**4229.61**							
	Add Cement Rate as per issue rate	1161.86		(220/50)*264.06				1161.864	
	Total	**5391.48**							
	Basic Rate	5391.48							
	Area Weightage@6%	323.49							
	Total Rate	**5714.97**							

3	KSRRB M2200-5.12. Providing and laying Design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.7 cum and fine aggregates @ 0.47 cum, with superplastisiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008. i) Upto 5 m height. (PW,P& IWTD SR 2018-19 P-227, I-28.7.12)								
	(Pg 222 item no 27.27 of PW,P&IWTD S.R 2018-19)								
	Bottom	**Cum**	8	7.00	2.00	0.15	16.80		
	Bottom		7	6.50	2.00	0.15	13.65		
	Wall		2x8	7.00	0.30	0.90	30.24		
	Wall		2x7	6.50	0.30	0.90	24.57		
	Bottom		2	52.00	0.90	0.15	14.04		
	Wall		4	52.00	0.15	0.60	18.72		
		Cum			**Total Qty**		**115.48**	5775.38	666934.90
	Basic Rate	5321.00							
	Deduct Cement Rate as per SR 2018-19	1668.14		(340/100)*490.63				6123.89 1668.142	
	Sub Total	3652.86							
	Add Cement Rate as per issue rate	1795.61		(340/50)*264.06				1795.608	
	Total	5448.47							
	Basic Rate	5448.47							
	Area Weightage@6%	326.91							
	Total Rate	**5775.38**							
4	Providing **T.M.T steel reinforcement for R.C.C work** including straightening cutting, bending, hooking, placing wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of ,materials, labor HOM of machinery completed as per specifications. -do- Fe 500								
	(Pg 18 item no 4.46.2 of PWD SR 2018-19)								
	For Drain 50kg/cmt			32.76		50	1638.00		
							1.64		
	For Culvert 75kg/cmt	**MT**		85.26		75	5550.00		
							5.55		
						Total	**7.19**	**75223.96**	**540619.18**
	Basic Rate	70966.00						92662.07	
	Area Weightage@6%	4257.96							
	Total Rate	**75223.96**							
5	Providing and fixing precast reinforced cement concrete covering slabs of 10cm thick made out of M25 with OPC cement @340kgs per cum , 20mm and down size graded granite metal corse aggregtes @ 0.70cm and fine aggregates @ 0.74 cum with super plasticizers, machine mixed , inclding providing and removing centering, shuttering strutting propping etc., for edges of slab with TMT steel (Fe500) cost & reinforcement charges inclding finishing as required with cost of reinforcement etc., complete as directed by engineer incharge of the work								
			2	52.00	0.90		93.60		
			540	0.60	0.90		291.60		
		Sqm			**Total Qty**		**384.93**	**1615.00**	**621661.95**
	Aproved Rate	**1615.00**							

	Ashphalt ROAD									
6	KSRRB 300-45. Scarifying stone metal crust 50mm to 100mm thick with pick axes along with premix carpet / surface dressing and stacking of old serviceable materials by manual means including cost of all labour charges complete as per specifications. MORTH / Chapter 3									
	(Pg 146 item no 19.52 PW,P&IWTD S.R 2018-19)									
	Pipe line Road		1	635.00	7.00	0.20	889.00			
						Total	**889.00**	**44.03**	**39142.67**	
	Basic Rate	39.00								
	Lead calculation for 15km ((2x1.28x14)x0.075=2.688)	2.69								
	Area Weightage@6%	2.34								
	Total Rate	**44.03**								
7	KSRRB M300-14. Excavation for roadwork in all type of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting with a lead of 1.00 km and complete as per specification MORTH Specification No.301									
	(Pg 143 item no 19.14 PW,P&IWTD S.R 2018-19)									
	Pipe line Road	**Cum**	1	635.00	7.00	0.30	1333.50			
			2	635.00	1.00	0.40	508.00			
						Total	**1841.50**	**79.30**	**146030.95**	
	Basic Rate	41.00								
	Lead calculation for 15km ((2x1.28x14)	35.84								
	Area Weightage@6%	2.46								
	Total Rate	**79.30**								
8	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC,Carriage of mixed material to work site, spreading in uniform layers withmotor grader on prepared surface and compacting with vibratory powerroller to achieve the 98 % proctor density, complete as per specifications.Clause 401 of MORTH V Revision									
	(Pg 153 item no 20.5 of PW,P&IWTD S.R 2018-19)									
	Pipe line Road	**Cum**	1	635.00	7.00	0.15	666.75			
			2	635.00	1.00	0.20	254.00			
						Total	**666.75**	**1994.92**	**1330112.91**	
	Basic Rate	1882.00								
	Area Weightage@6%	112.92								
	Total Rate	**1994.92**								
9	**Wet Mix Macadam** - KSRRB M400-17. Providing, laying, spreading and compacting graded stones aggregate to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406									
	(Pg 155 item no 20.18 of PW,P&IWTD S.R 2018-19)									

				635.00			1000.13		
	Pipe line Road	Cum	1	~~694.00~~	7.00	0.23	~~1093.05~~		
						Total	~~1093.05~~	2001.28	~~2187499.10~~
	Basic Rate	1888.00					1000.13		2001530.16
	Area Weightage@6%	113.28							
	Total Rate	2001.28							
10	KSRRB M500-6 Providing and applying primer coat with ss bitumen emulsion on prepared surface of granular base such as WMM including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means complete as per specifications. MORTH Specification No.502								
	(Pg 158 item no 21.6 of PW,P&IWTD S.R 2018-19)						4445.00		
	Pipe line Road	~~Cum~~ Sqm	1	~~694.00~~	7.00		~~4858.00~~		
				635.00		Total	~~4858.00~~	29.68	~~144185.44~~
	Basic Rate	28.00					4445.00		131927.00
	Area Weightage@6%	1.68						33.92	
	Total Rate	29.68							
11	KSRRB 500-7:Providing and applying tack coat with bitumen emulsion using 80/100 grade bitumen (VG20) on the prepared black toped suface at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (Excluding cleaning of road surface) including cost of all materials, labour, HOM of Machineries complete as per Specifications								
	(Pg 158item no 21.7of PW,P&IWTD S.R 2018-19)						4445.00		
	Pipe line Road	~~Cum~~ Sqm	1	~~694.00~~	7.00		~~4858.00~~		
				635.00		Total	~~4858.00~~	12.72	~~61793.76~~
	Basic Rate	12.00					4445.00		56540.40
	Area Weightage@6%	0.72							
	Total Rate	12.72							
12	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications.. MORTH Specification No. 507 - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen								
	(Pg 160 item no 21.17.6 of PW,P&IWTD S.R 2018-19)						222.25		
	Pipe line Road	Cum	1	~~694.00~~	7.00	0.05	~~242.90~~		
				635.00		Total	~~242.90~~	6407.70	~~1556130.33~~
	Basic Rate	6045.00					222.25		1424111.33
	Area Weightage@6%	362.70						8545.72	
	Total Rate	6407.70							
13	KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using 100/120 TPH capacity H.M.P. with sensor paver Gr-II (30 mm to 45 mm) with6 % VG-30 Bitumen								

ADMINISTRATIVELY SANCTIONED FOR
(Rupees 99,00,000/-
Rs. Ninty nine lakhs only
Under the Head of Account P-3602
Registered as no EE(D.D.)/AS 03 Subject
o conditions contained in Enclosed Memo
No 03 /2021-22 Dt.05.05.2021
E/AE. Exe Engr
(DASARAHALLI) DIVN

Technically Sanctione for Rs.88.36 Lakhs
Rs. In words Rs. Eighty Eight lakhs Thirty six thousand three hundred & Thirty five
Under P-3602
Job Code No. 012-20-000117
Registered as CI No. 14 /2021-22 Subject
to conditions contained in Enclosed Memo
No CE./D.2./TS/14/2021-22 Dt: 05/07/2021
AE/JE: TA CE(D)

	(Pg 162 item no 21.78.12 of PW,P&IWTD S.R 2018-19)								
	Pipe line Road	Cum	1	635.00	7.00	0.03	133.35		
						Total	133.35	7537.66	1005146.96
	Basic Rate	7111.00							
	Area Weightage@6%	426.66						9590.88	
	Total Rate	7537.66							
14	Providing and fixing pre cast solid cement concrete kerb stones made out of C.C. 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., etc., complete as per specifications and as per the direction of Engineer-in-charge of the work								
	Pipe line Road	Nos		620			620		
	Basic Rate 408/-						620.00	432.48	268137.60
	Area Weightage 6% : 24.48 Total 432.48							450.61	
15	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 P.No. 180 Item No 24.1								
	Pipe line Road	Cum	2	635.00		0.45	572		
	Basic Rate 80.00 Weightage 6% 4.80 84.80						571.50	84.80	48463.20
16	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic compound with Reflectrising Glass beads on Bituminous surface:-Providing and laying of Hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads at 250gm/sqm area thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35,. The finished surface to be level, uniform and pre firm streaks and holes complete as per specifications.								
	(Pg 182 item no 24.15 of PW,P&IWTD S.R 2018-19)						158.75		
	Pipe line Road	Sqmt	2.5	635.00	0.10		1587.50		7 2189.93
						Total	1587.50	454.74	721899.75
	Basic Rate	429.00					158.75		
	Area Weightage@6%	25.74							
	Total Rate	454.74							8832906.60
								Sub-Total	8837284.37
							1059468.79	GST 12%	1060474.12
							11624.61	Miscellanauous	2241.51
								Sub Total	9900000.00

CERTIFICATE

1) The site has been inspected and the work is found to be necessary.
2 The rates adopted are as per PW,P IWTD SR of 2018-19
3) The provisions were made in this estimate are necessary and adequate.
4) The area comes under the Bruhat Bengaluru Mahanagara Palike Limits.

Asst Engineer
Ward-12

Assistant Executive Engineer
Shettyhalli Sub Division

Executive Engineer
Dasarahalli Division